

### The State of New Hampshire Department of Environmental Services



Michael P. Nolin Commissioner

### AGGREGATED PRECIPITATION DATA for N.H. DROUGHT MANAGEMENT AREAS

		Deviation				
	Actual	Normal	from	Percent		
	Rainfall	Rainfall	Normal	of		
	(inches)	(inches)	(inches)	Normal		
Coastal Drainage: R	ockingham, Straff	ord counties	,			
four month	31.26	13.08	18.18	239%		
six month	35.08	19.16	15.92	183%		
nine month	50.11	30.40	19.71	165%		
twelve month	70.90	40.70	30.20	174%		
Southern Interior: Be	elknap, Hillsboroug	gh, Merrimack coun	ties			
four month	27.43	13.07	14.36	210%		
six month	31.07	19.28	11.79	161%		
nine month	44.69	30.40	14.29	147%		
twelve month	64.66	40.79	23.87	159%		
South Western: Ches	shire Sullivan cou	nties				
four month	21.11	13.02	8.09	162%		
six month	24.13	19.24	4.89	125%		
nine month	37.52	30.02	7.50	125%		
twelve month	59.30	40.58	18.72	146%		
White Mountain: Car			40.40	0000/		
four month	24.34	12.16	12.18	200%		
six month	27.70	17.82	9.88	155%		
nine month	40.68	28.28	12.40	144%		
twelve month	59.21	38.80	20.41	153%		
North Country: Coos	county					
four month	21.88	11.20	10.68	195%		
six month	25.49	16.44	9.05	155%		
nine month	38.99	26.08	12.91	150%		
twelve month	59.42	36.96	22.46	161%		

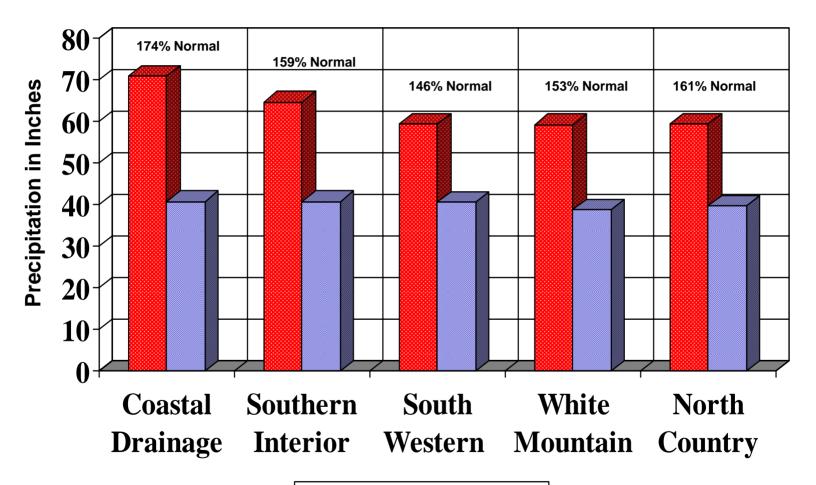
four month period : April 2006 - July 2006 six month period : February 2006 - July 2006 nine month period : November 2005 - July 2006 twelve month period: August 2005 - July 2006

Source: Northeast River Forecast Center, NH Des Dam Bureau

Telephone: (603) 271-3503 • Fax: (603) 271-7894 • TDD Access: Relay NH 1-800-735-2964

DES Web site: www.des.nh.gov

# TWELVE MONTH AGGREGATED PRECIPITATION DATA for N.H. DROUGHT MANAGEMENT AREAS from August 2005 through July 2006







#### **MONTHLY PRECIPITATION DATA FOR N.H COUNTIES**

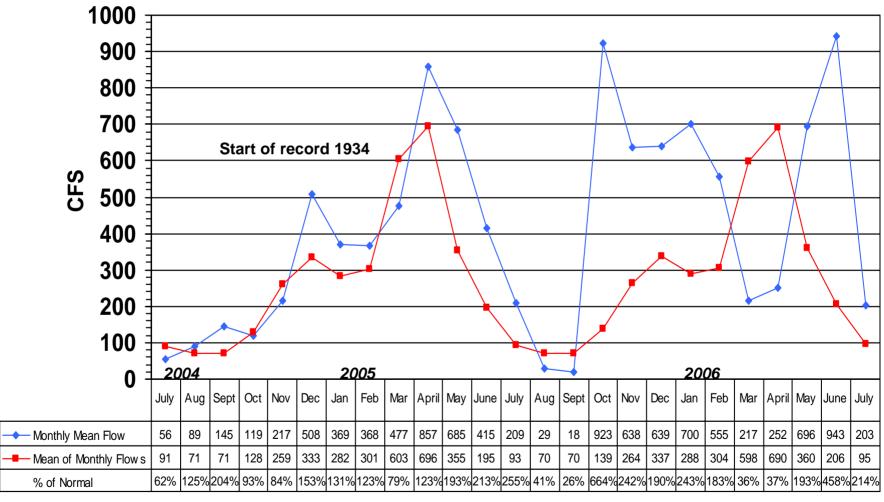
								2006					
		AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY
Coastal drainage													
STRAFFORD	actual	1.98	2.92	15.92	4.94	5.80	5.67	2.93	1.25	3.34	12.79	8.67	5.86
	normal	3.28	3.44	3.48	4.12	3.76	3.12	2.72	3.20	3.40	3.12	3.12	3.12
	deviation	-1.30	-0.52	12.44	0.82	2.04	2.55	0.21	-1.95	-0.06	9.67	5.55	2.74
ROCKINGHAM	actual	3.33	2.67	14.77	4.68	4.74	4.22	2.56	0.91	3.27	14.20	9.25	5.13
	normal	3.44	3.40	3.56	4.24	3.92	3.32	2.84	3.40	3.44	3.32	3.32	3.32
	deviation	-0.11	-0.73	11.21	0.44	0.82	0.90	-0.28	-2.49	-0.17	10.88	5.93	1.81
Average	actual	2.66	2.80	15.35	4.81	5.27	4.95	2.75	1.08	3.31	13.50	8.96	5.50
	normal	3.36	3.42	3.52	4.18	3.84	3.22	2.78	3.30	3.42	3.22	3.22	3.22
	deviation	-0.71	-0.63	11.83	0.63	1.43	1.73	-0.04	-2.22	-0.12	10.28	5.74	2.28
Southern Interior													
HILLSBOROUGH	l actual	3.13	2.09	14.39	4.59	4.55	4.46	2.58	0.99	2.66	10.93	9.82	3.98
	normal	3.68	3.60	3.72	4.32	4.16	3.60	3.16	3.88	3.56	3.60	3.60	3.60
	deviation	-0.55	-1.51	10.67	0.27	0.39	0.86	-0.58	-2.89	-0.90	7.33	6.22	0.38
MERRIMACK	actual	2.52	3.18	15.05	4.99	4.56	4.29	2.55	1.48	2.95	11.72	9.62	5.19
	normal	3.44	3.36	3.44	4.00	3.92	3.16	2.84	3.40	3.36	3.16	3.16	3.16
	deviation	-0.92	-0.18	11.61	0.99	0.64	1.13	-0.29	-1.92	-0.41	8.56	6.46	2.03
BELKNAP	actual	2.38	3.47	13.71	4.02	5.14	4.26	2.12	1.19	2.66	8.95	8.02	5.79
	normal	3.28	3.36	3.28	3.80	3.48	2.92	2.44	2.92	3.24	2.92	2.92	2.92
	deviation	-0.90	0.11	10.43	0.22	1.66	1.34	-0.32	-1.73	-0.58	6.03	5.10	2.87
Average	actual	2.68	2.91	14.38	4.53	4.75	4.34	2.42	1.22	2.76	10.53	9.15	4.99
	normal	3.47	3.44	3.48	4.04	3.85	3.23	2.81	3.40	3.39	3.23	3.23	3.23
	deviation	-0.79	-0.53	10.90	0.49	0.90	1.11	-0.40	-2.18	-0.63	7.31	5.93	1.76
South Western													
CHESHIRE	actual	2.99	2.86	15.86	4.87	4.81	4.10	1.55	1.13	2.28	5.32	7.22	3.04
	normal	3.68	3.52	3.36	3.84	3.76	3.28	2.80	3.48	3.40	3.28	3.28	3.28
	deviation	-0.69	-0.66	12.50	1.03	1.05	0.82	-1.25	-2.35	-1.12	2.04	3.94	-0.24
SULLIVAN	actual	3.73	2.92	15.20	5.42	3.76	3.82	2.01	1.35	2.85	7.26	9.05	5.19
	normal	3.64	3.44	3.48	3.84	3.72	3.12	2.80	3.36	3.44	3.12	3.12	3.12
	deviation	0.09	-0.52	11.72	1.58	0.04	0.70	-0.79	-2.01	-0.59	4.14	5.93	2.07
Average	actual	3.36	2.89	15.53	5.15	4.29	3.96	1.78	1.24	2.57	6.29	8.14	4.12
	normal	3.66	3.48	3.42	3.84	3.74	3.20	2.80	3.42	3.42	3.20	3.20	3.20
	deviation	-0.30	-0.59	12.11	1.31	0.55	0.76	-1.02	-2.18	-0.86	3.09	4.94	0.92
White Mountain													
GRAFTON	actual	4.76	3.85	10.74	4.99	3.61	3.44	1.70	1.53	2.81	6.87	7.90	5.76
	normal	3.64	3.48	3.48	3.76	3.64	2.92	2.60	3.04	3.24	2.92	2.92	2.92
	deviation	1.12	0.37	7.26	1.23	-0.03	0.52	-0.90	-1.51	-0.43	3.95	4.98	2.84
CARROLL	actual	3.59	3.20	10.92	4.74	5.11	4.06	2.19	1.30	2.84	8.22	7.95	6.33
	normal	3.48	3.44	3.52	3.92	3.68	3.00	2.60	3.08	3.32	3.00	3.00	3.00
	deviation	0.11	-0.24	7.40	0.82	1.43	1.06	-0.41	-1.78	-0.48	5.22	4.95	3.33
Average	actual	4.18	3.53	10.83	4.87	4.36	3.75	1.95	1.42	2.83	7.55	7.93	6.05
	normal	3.56	3.46	3.50	3.84	3.66	2.96	2.60	3.06	3.28	2.96	2.96	2.96
	deviation	0.62	0.07	7.33	1.03	0.70	0.79	-0.66	-1.65	-0.46	4.59	4.97	3.09
North Country													
COOS	actual	4.75	4.78	10.90	5.96	4.00	3.54	1.86	1.75	3.02	6.10	7.96	4.80
	normal	4.00	3.40	3.48	3.48	3.44	2.72	2.48	2.76	3.04	2.72	2.72	2.72
	deviation	0.75	1.38	7.42	2.48	0.56	0.82	-0.62	-1.01	-0.02	3.38	5.24	2.08

Source: Northeast River Forecast Center, NH DES Dam Bureau

# LAMPREY RIVER near NEWMARKET NH Gage# 01073500



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

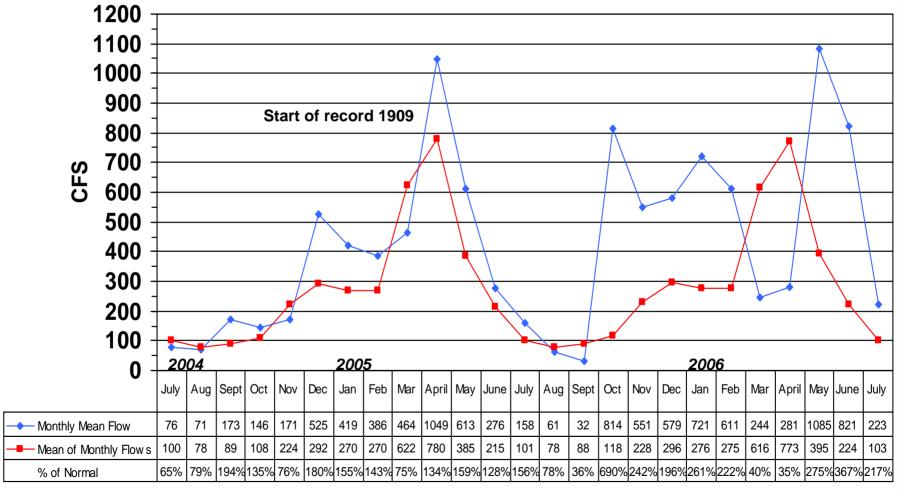


NH DES, Dam Bureau, Source: USGS (Ice: 01/03,12/04)

### SOUHEGAN RIVER at MERRIMACK NH Gage# 01094000



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

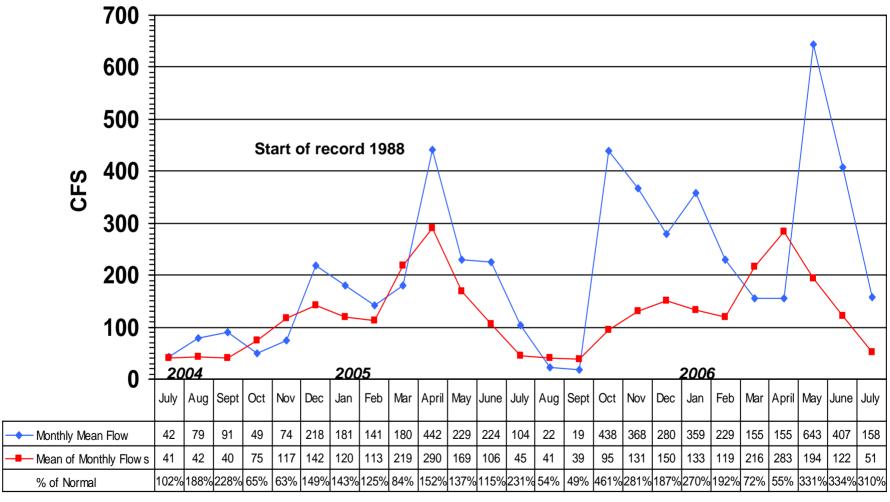


NH DES, Dam Bureau, Source: USGS (ice-01/03,02/03,03/03,01/04,02/04)

# SOUCOOK RIVER at PEMBROKE ROAD near CONCORD NH, Gage# 01089100



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

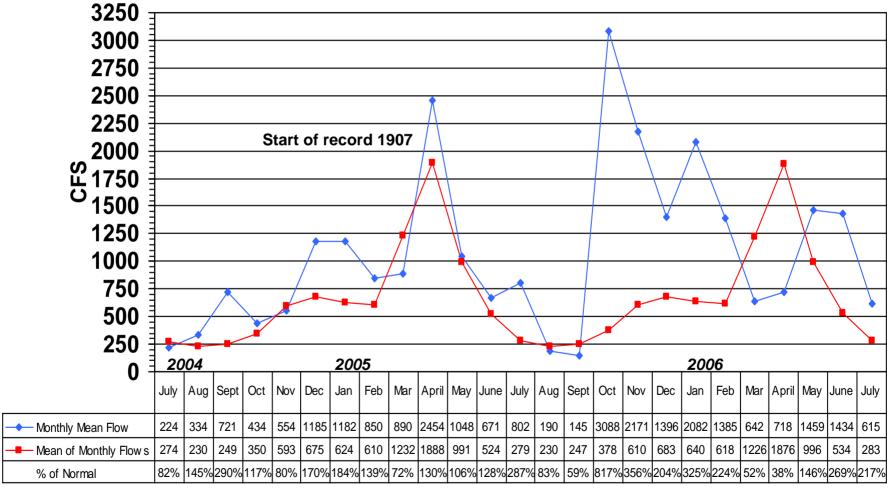


NH DES, Dam Bureau, Source: USGS (ice: 01/03, 02/03, 03/03, 01/04, 02/04, 03/04).

# ASHUELOT RIVER at HINSDALE NH Gage# 01161000



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

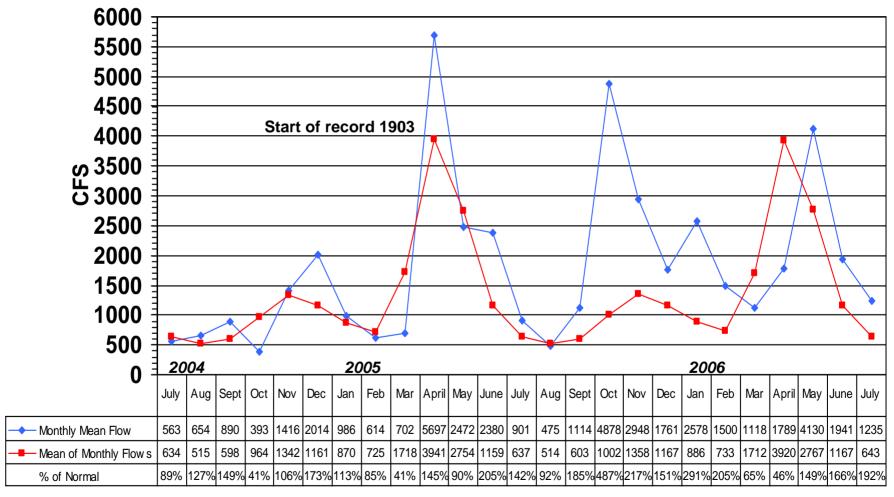


NH DES, Dam Bureau, Source: USGS (ice: 01/03,02/03,03/03,01/04,02/04,03/04)

# PEMIGEWASSET RIVER at PLYMOUTH NH Gage# 01076500



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS



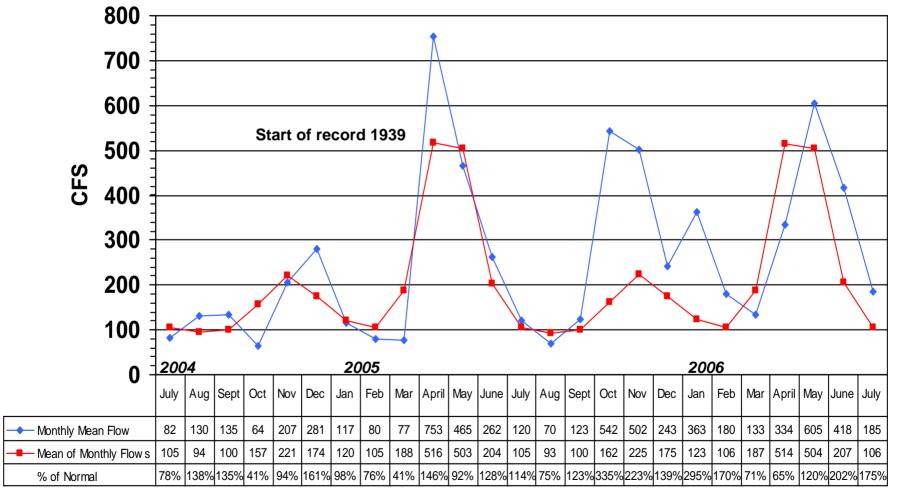
NH DES, Dam Bureau, Source: USGS (ice: 01/03,02/03,03/03,12/03,01/04,02/04,03/04,12/04)

# AMMONOOSUC RIVER at BETHLEHEM JUNCTION NH Gage# 01137500



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

This station replaces gage# 01137000 which was discontinued by DES at the end of Sept 2004



NH DES, Dam Bureau, Source: USGS(ice:01/04,02/04,03/04,12/04)

#### STREAMFLOW DATA FOR SELECTED NH STATIONS AS OF AUGUST 14, 2006



						Lowest Period		Below	Below	ow Below
Station		Est. Mean	Long Term	99%	7Q10	of Record	% of	0.99	7Q10	Record
number	Station name	Flow (cfs)	Median Flow	Flow (cfs)	Flow (cfs)	Daily Flow (cfs)	Median	Flow?	Flow?	Flow?
Androscoggin Rive	r Pasin									
	River near Wentworth Location, NH	103	75	22	16	6.8	137%	FALSE	FALSE	FALSE
	oggin River at Errol, NH	1,720	1,690	500	451	0.8	102%	FALSE	FALSE	FALSE
	oggin River at Errot, NH	1,800	1,850	1300	1310	795	97%		FALSE	FALSE
01034000 Andioso	oggin River hear Gornam, Nin	1,000	1,000	1300	1310	193	31 /0	TALUL	IALOL	TALSE
Saco River Basin										
01064500 Saco Riv	ver near Conway, NH	325	237	105	97	66	137%	FALSE	FALSE	FALSE
01064801 BEARCA	AMP RIVER AT SOUTH TAMWORTH, NH	21	22	6	4.8	4.5	95%	FALSE	FALSE	FALSE
Piscatagua River B	noin.									
	ON RIVER NEAR ROCHESTER, NH	32	21			2.2	152%	#\/∆I I I⊏I	#VALUE!	FALSE
	EY RIVER NEAR NEWMARKET, NH	47	41	7			115%			#VALUE!
01073300 LAWI KL	TIMEN NEAR NEW MARKET, NIT	71	71		J		11370	IALUL	IALUL	#VALUE:
Merrimack River Ba	asin									
01074520 EAST BI	RANCH PEMIGEWASSET RIVER AT LINCOLN, NH	113	119	55	49	46	95%	FALSE	FALSE	FALSE
01075000 PEMIGE	WASSET RIVER AT WOODSTOCK, NH	161	124	65	56		130%	FALSE	FALSE	
01076000 BAKER	RIVER NEAR RUMNEY, NH	63	41	18	15		154%	FALSE	FALSE	
01076500 PEMIGE	WASSET RIVER AT PLYMOUTH, NH	377	315	130	118	45	120%	FALSE	FALSE	FALSE
01078000 SMITH F	RIVER NEAR BRISTOL, NH	48	22	7	6.2	2.7	218%	FALSE	FALSE	FALSE
01081000 WINNIPI	ESAUKEE RIVER AT TILTON, NH	884	302	143	136	48	293%	FALSE	FALSE	FALSE
01081500 MERRIM	IACK RIVER AT FRANKLIN JUNCTION, NH	1,380	1,180	520*	551		117%		FALSE	
01082000 CONTO	OCOOK RIVER AT PETERBOROUGH, NH	21	23	5.5	6.3		91%	FALSE	FALSE	
	OCOOK RIVER NEAR HENNIKER, NH	96		40	37			FALSE	FALSE	
	DCOOK R BL HOPKINTON DAM AT W HOPKINTON, NH	121	138	35	39		88%	FALSE	FALSE	
	R RIVER AT DAVISVILLE, NH	65	28	6	5.3		232%		FALSE	
	VATER RIVER NEAR WEBSTER, NH	157		15.5	13.7			FALSE	FALSE	
	AQUOG RIVER BL EVERETT DAM, NR E WEARE, NH	21		1.7	1.2			FALSE	FALSE	
	AQUOG RIVER NEAR GOFFSTOWN, NH	16		8	8.8			FALSE	FALSE	
	IACK R NR GOFFS FALLS, BELOW MANCHESTER, NH	2,290	1,500	560*	644	98*	153%		FALSE	
01094000 SOUHE	GAN RIVER AT MERRIMACK, NH	52	46	15	12.9		113%	FALSE	FALSE	
Connecticut River I	Pagin									
	CTICUT R BELOW INDIAN STREAM NR PITTSBURG, NH	653	425		42	30	15/10/	FALSE	FALSE	FALSE
	CTICUT RIVER AT NORTH STRATFORD, NH	918	712		176	108	129%	FALSE	FALSE	FALSE
	CTICUT RIVER AT NORTH STRATT ORD, NIT	1,720	1,050		389	115	164%		FALSE	FALSE
	OOSUC RIVER AT BETHLEHEM JUNCTION, NH	1,720	1,030		28	21	184%		FALSE	FALSE
	CTICUT RIVER AT WELLS RIVER, VT	2,180	1,650		690	152*	132%	TALOL	FALSE	FALSE
	CTICUT RIVER AT WEST LEBANON, NH	5,180	2,460	380*	902	82*	211%		FALSE	
	RIVER AT WEST CLAREMONT, NH	201	2,400	40	38	14		FALSE	FALSE	FALSE
	CTICUT RIVER AT NORTH WALPOLE, NH	2,980	3,070	260*	1058	115*	97%	. ALOL	FALSE	· ALOL
	OT RIVER BELOW SURRY MT DAM, NEAR KEENE, NH	28	16	4.5	2.7	0.4	175%	FALSE	FALSE	FALSE
	BROOK BELOW OTTER BROOK DAM, NEAR KEENE, NH	7	8.4	1.6	1.1	0.3	83%		FALSE	FALSE
	OT RIVER AT WEST SWANZEY, NH	65	91	32				FALSE		
		-	٥.	~-			, 0			

<sup>\*</sup>Flow duration and record low mean daily flow significantly affected by reservoir operations

Source: USGS, NH DES

SUMMARY	Below	Below	Below
	0.99	7Q10	Record
	Flow?	Flow?	Flow?
FALSE =	28	32	17
TRUE =	0	0	0

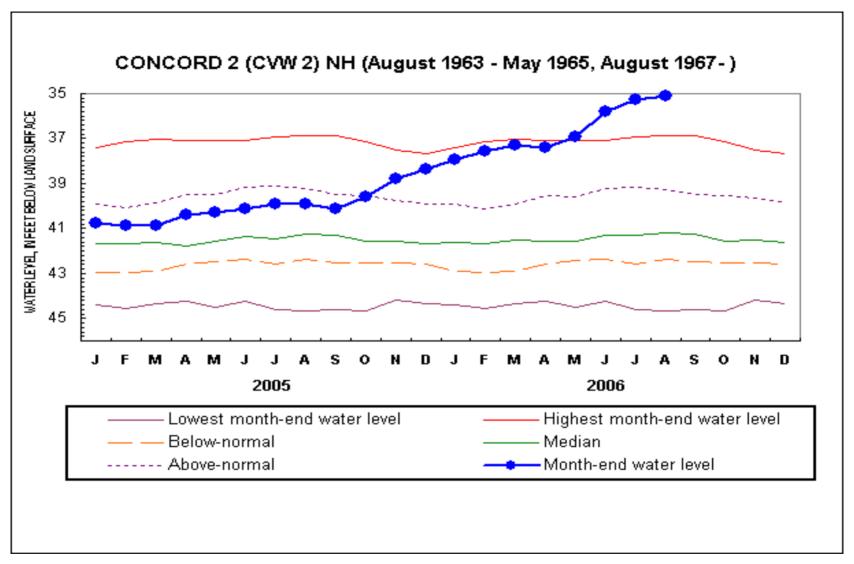
<sup>\*\*</sup>Estimated

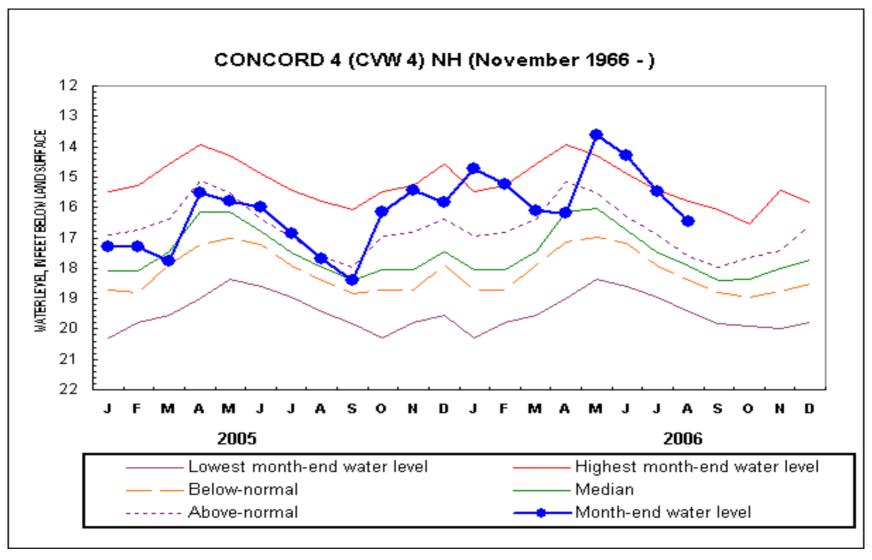
#### **New Hampshire Groundwater Levels for July 2006**

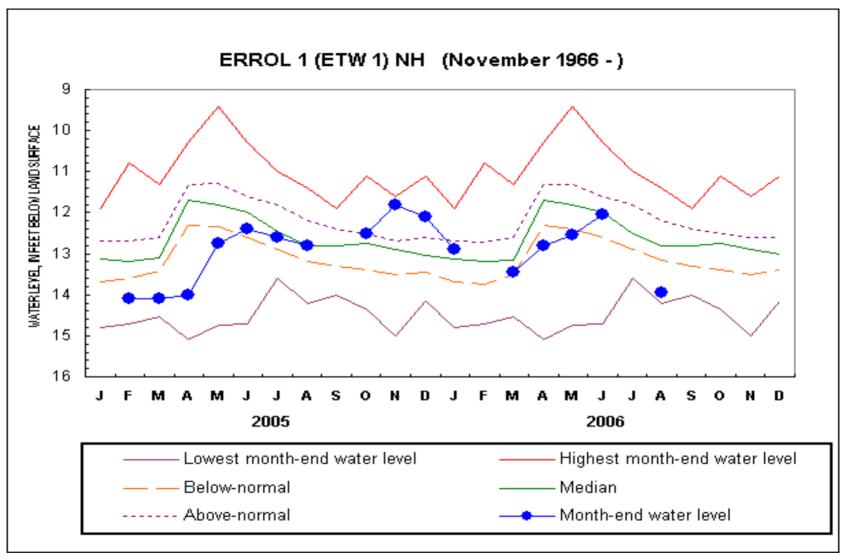


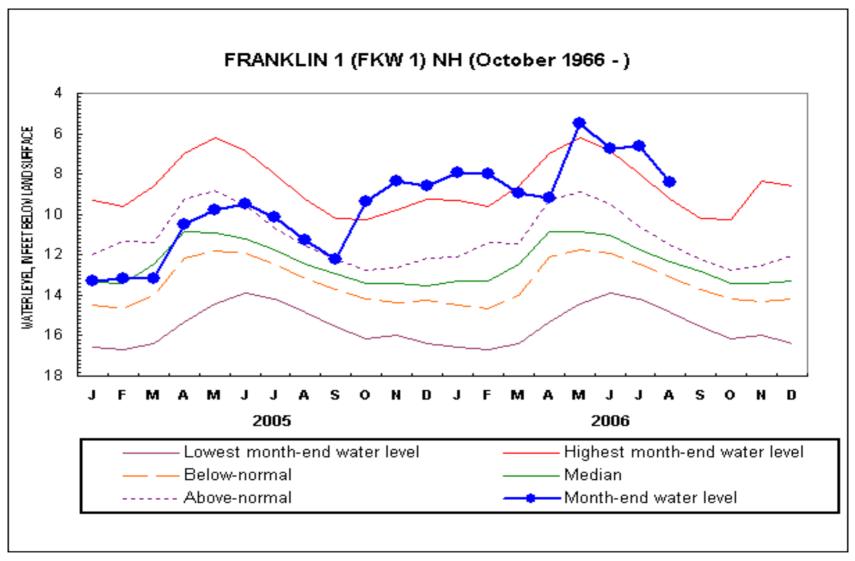
	START OF	WATER LEVEL BELOW	NET CHANGE	NET CHANGE			DEPARTURE FROM	PERCENT OF	
WELL	RECORD	SURFACE DATUM (ft)	IN ONE MONTH (ft)	IN ONE YEAR (ft)	MEDIAN	RANGE (ft)	MONTHLY MEDIAN (FT)	<u>RANGE</u>	<u>STATUS</u>
ALBANY 14	1995	5.77	-0.73	+0.73	6.96	1.91	+1.19	62.3	ABOVE NORMAL
ALBANY 15	1995	7.81	-1.02	+0.72	8.75	2.46	+0.94	38.2	ABOVE NORMAL
BARNSTEAD 10	1995	2.36	-0.09	+0.47	3.18	0.35	+0.82	234.3	ABOVE NORMAL
CAMPTON 34	1988	12.39	-0.42	-0.06	13.52	1.88	+1.13	60.1	NORMAL
COLEBROOK 73	1995	7.75	-0.82	-0.42	7.95	0.72	0.2	27.8	NORMAL
CONCORD 2	1963	35.26	+0.55	+4.66	41.32	4.39	+6.06	138.0	ABOVE NORMAL
CONCORD 4	1966	15.48	-1.20	+1.37	17.48	2.03	+2.00	98.5	ABOVE NORMAL
DEERFIELD 46	1984	37.45		+0.69	38.49	0.75	+1.04	138.7	ABOVE NORMAL
ENFIELD 30	1990	1.99	-0.24	+3.02	6.02	3.52	+4.03	114.5	ABOVE NORMAL
ERROL 1	1966				12.5				
FRANKLIN 1	1966	6.64	+0.09	+3.51	11.73	3.75	+5.09	135.7	ABOVE NORMAL
GREENFIELD 75	1995	56.61	+0.32	+2.73	60.62	1.63	+4.01	246.0	ABOVE NORMAL
HOOKSETT 5	1965	46.38	-1.81	+1.55	48.25	4.51	+1.87	41.5	ABOVE NORMAL
KEENE 2	1963	3.46	-1.56	+0.19	4.73	1.89	+1.27	67.2	ABOVE NORMAL
LANCASTER 1	1966	2.20	-0.60	+0.30	2.26	1.36	+0.06	4.4	NORMAL
LEE 1	1953	30.36	-0.58	+0.30	31.25	0.88	+0.89	101.1	ABOVE NORMAL
LISBON 19	1990	13.59	-0.70	+0.88	14.50	1.99	+0.91	45.7	ABOVE NORMAL
NASHUA 218	1964	26.91	-0.93	+0.62	27.97	1.58	+1.06	67.1	ABOVE NORMAL
NEW DURHAM 53	1986	18.60	-0.17	+0.52	19.56	1.03	+0.96	93.2	ABOVE NORMAL
NEW LONDON 1	1947	4.32	+2.43	+4.34	10.85	3.55	+6.53	183.9	ABOVE NORMAL
NEWPORT 3	1995	3.56	+1.08	+2.26	6.27	1.62	+2.71	167.3	ABOVE NORMAL
NEWPORT 6	1995	3.66	+1.06	+2.23	6.37	1.69	+2.71	160.4	ABOVE NORMAL
OSSIPEE 38	1995	33.45	-0.36	+1.09	35.33	1.53	+1.88	122.9	ABOVE NORMAL
SHELBURNE 2	1995	4.90	-1.27	+0.17	4.90	0.48	+0.00	0.0	NORMAL
WARNER 1	1965	26.54	-1.26	+1.78	29.93	2.13	+3.39	159.2	ABOVE NORMAL

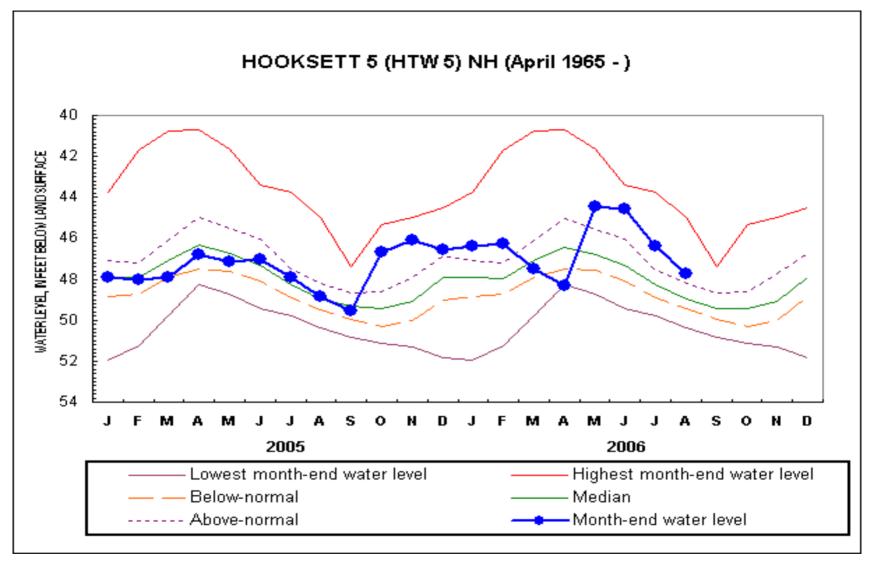
Source: USGS, NH DES

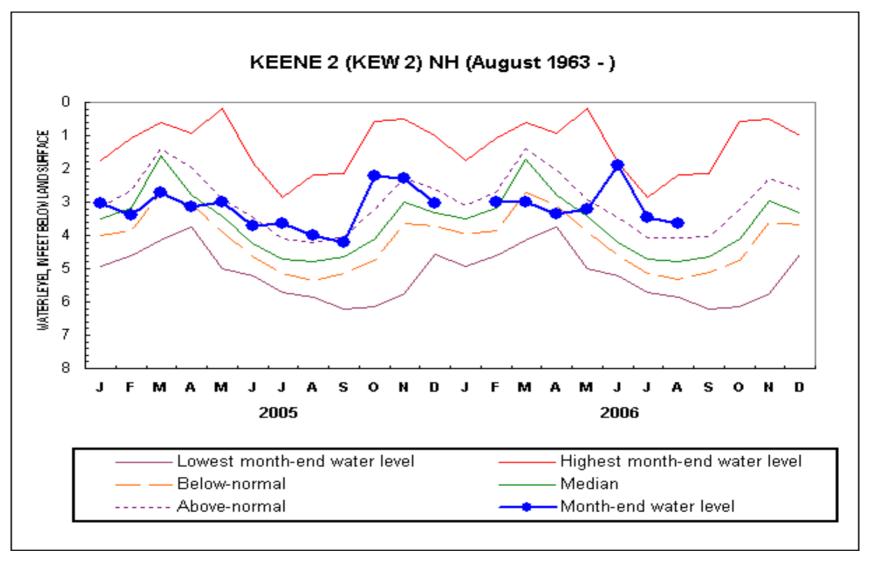


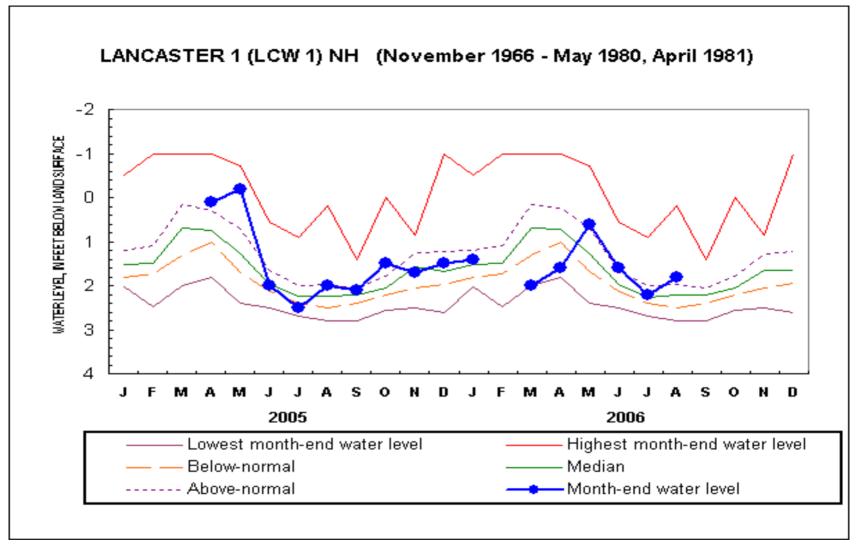


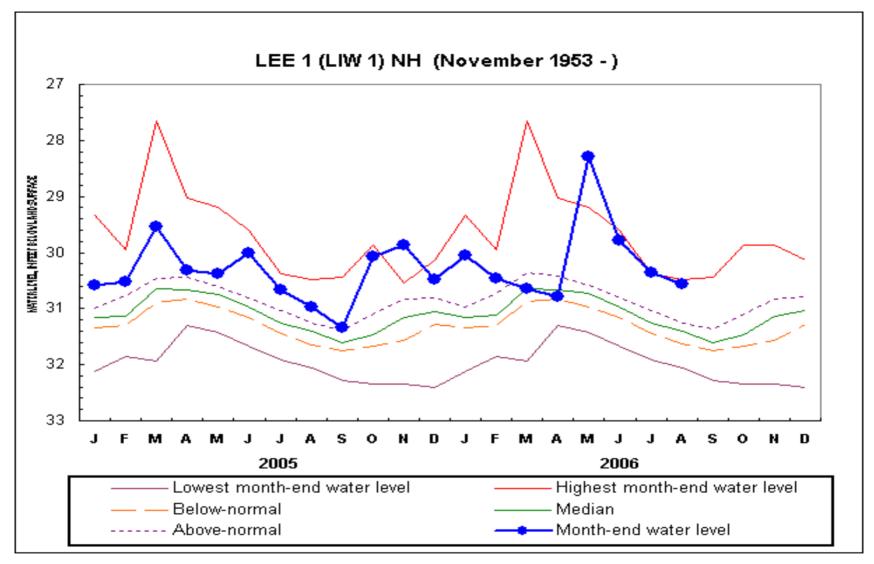


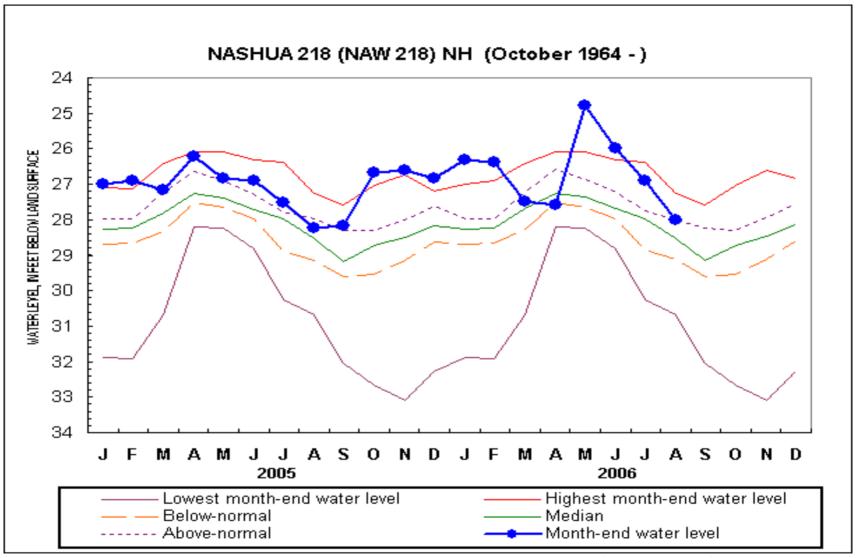


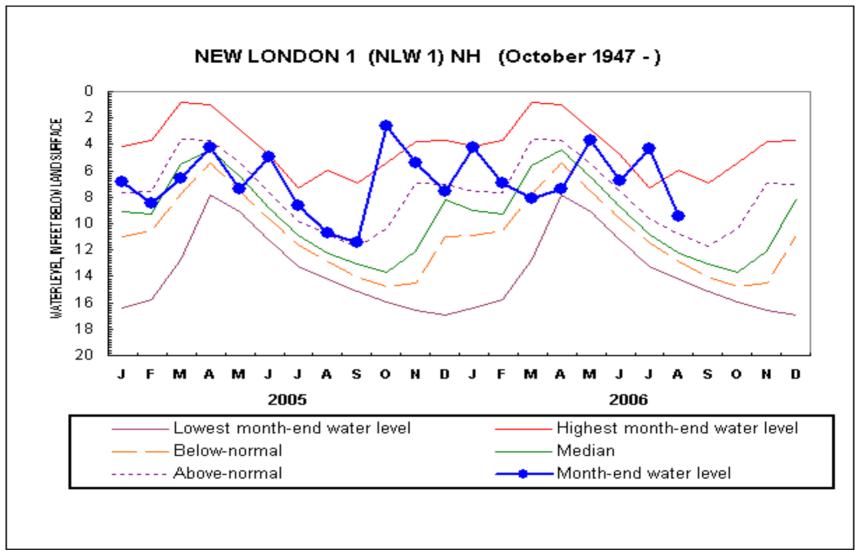


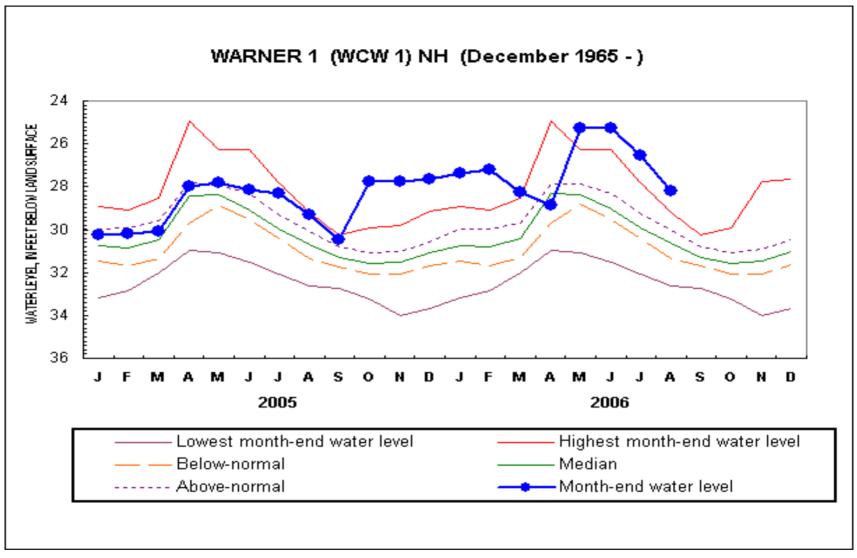






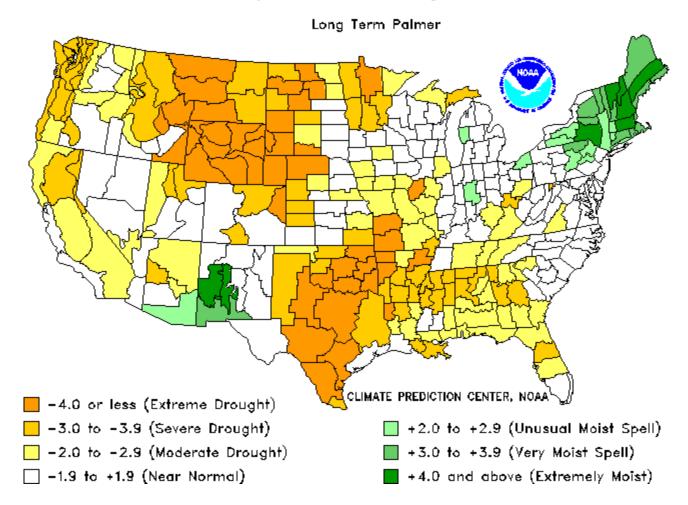






#### Drought Severity Index by Division

Weekly Value for Period Ending 19 AUG 2006

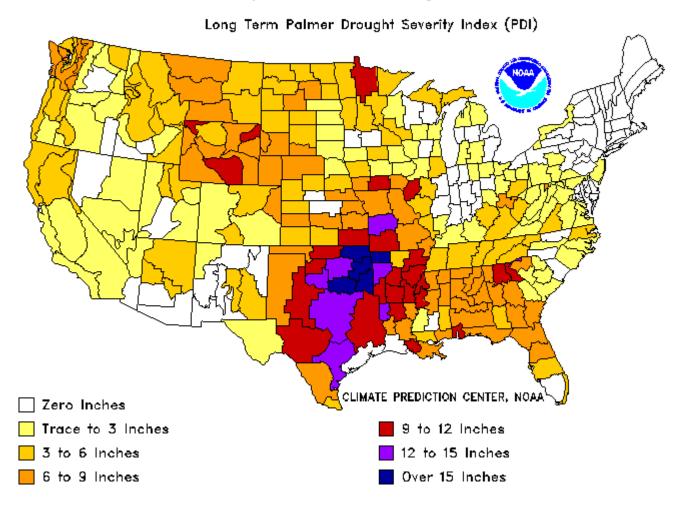


#### THE PALMER DROUGHT SEVERITY INDEX

The Palmer Index uses temperature and rainfall information in a formula to determine dryness. The advantage of the Palmer Index is that it is standardized to local climate.

Additional Precip. Needed (In.) to Bring PDI to -0.5

Weekly Value for Period Ending 19 AUG 2006



This is the amount of rainfall required in a week's time to bring the index back to zero inches required.